

The KD2MT Logger
Version 1.50
Public Domain by
David Myers
Box 9861
Duke Station
Durham, NC 27706

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INTRODUCTION

Being a ham, and having a computer, I thought I'd computerize my QSO logging. This is not a contester's logger, although it can be used as one. This is a general purpose computerized implementation of a standard ham's logbook, based on the ARRL logbook. Although there is something nice about a handwritten log, if your handwriting is like mine, you'll appreciate having your printer do the writing. You don't have to have a printer, though.

I decided to make the Logger store its data on a disk, rather than in memory, like most database programs. This would allow a very large log, and some ham friends of mine have logs of 4000+ Q's. A log that size could run into storage problems if it were kept in memory. This means access to large amounts of contacts is slower on a floppy disk based system. I have a hard disk, but have tried the program on a PC with floppy disks and found that the performance is not too bad.

I've tested the Logger with over 12,000 QSO's logged. That's a data file over 1 megabyte in size.

An option for using the program on a floppy system or hard disk system is to store the Logger's data in a RAM disk, which gives very fast performance. I highly recommend that you use a RAM disk if you have a floppy disk system. More on that later.

If you have any comments about the Logger, you can write to me at the above address. Don't send any money, as I am just releasing this for fun, and not for any other reason.

CONFIGURATION

The Logger disk or ARChive, whichever you received, includes a file called LOGGER.CNF, the Logger's configuration file. This is a text file containing the following:

```
"KD2MT","",""  
"Your callsign","Path to LOGGER.DAT","Path to temporary  
storage"
```

Using an ASCII editor such as EDLIN, replace the first string in quotes with your callsign, so it will appear on the title screen and on printed copies of your log. (The information in LOGGER.CNF must appear on the first line of the file, in quotes, separated by commas. The second line is there as a reminder, and the Logger ignores it.)

Fill the second set of quotes with the path name for the file LOGGER.DAT, the Logger's data file.

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NOTE: LOGGER.DAT is the file that contains your logbook entries. It is created by the Logger after you've entered your first entries and used the save file command. It is not included in the ARChive or on the disk.

Empty quotes mean that the file is in the default directory. Example entries are:

```
"B:"  
"C:\LOGGER\DATA\"  
"D:\"
```

The string in the third set of quotes tells the Logger where to write the file LOGGER.TMP. The Logger uses this temporary file when it makes changes or additions to the log. This file is copied to LOGGER.DAT when you use the SAVE DATA FILE command.

Also, the LOGGER tries to back up LOGGER.TMP when a sort is performed. It tries to use the same drive LOGGER.TMP is on. If there is not enough space, you cannot sort.

This allows you to have LOGGER.EXE, LOGGER.DAT, and LOGGER.TMP in different directories, or on different drives. (LOGGER.CNF and LOGGER.PRT must be in the default directory.) Better yet, it allows you to tell the Logger to put the temporary file in a RAM disk. The path name entry should contain the drive letter of the RAM disk (followed by a colon, of course). This will provide the fastest access to the data.

If you use a RAM disk, it must be large enough to hold a file the size of LOGGER.DAT (107 bytes per log entry).

Three times this size would be best.

The file LOGGER.TMP is erased when the Logger is terminated.

NOTE: Refer to your DOS manual for information on setting up a RAM disk. On many systems, it will consist of adding the line:

```
DEVICE = \pathname\VDISK.SYS size
```

to the file CONFIG.SYS, which resides in the root directory of the disk you boot your computer from. The "pathname" is the path to the file VDISK.SYS (RAMDISK.SYS on some systems), and "size" is the size of the RAM disk in kilobytes. 100 might be a good value for "size". After you have added this line to CONFIG.SYS, you'll have to re-boot your machine for the RAM disk to be set up.

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NOTE FOR MONOCHROME MONITOR USERS: The Logger uses many windows with various background colors. These might not look so good on your monitor, especially if you have a color card, but a monochrome monitor. If this is the case, the first thing you should do when you start the Logger is to hold down the Alt key and type C. This toggles on and off the background colors, and changes some of the other colors around to make the Logger function better on monochrome systems. If you have a monochrome card, the Logger will automatically detect it, and set the colors correctly.

To set up the Logger to work with your printer, run the included program LOGPRT. Choose the printer that operates closest to yours. Hopefully, one will work. There aren't a heck of a lot yet, but it's growing. You can keep trying other printers by re-running LOGPRT.

LOGPRT creates the file LOGGER.PRT, which contains the printer codes the Logger needs to send its output correctly to a printer. LOGGER.PRT, like LOGGER.CNF, should reside in the same directory as LOGGER.EXE (or at least the default (startup) directory). Once you are done with LOGPRT, you can move it to another disk.

LOGGING YOUR CONTACTS

For each "record", or entry, in your log, the Logger stores 12 "fields", or items. They are adapted from the standard ARRL log, and their maximum lengths have been chosen to allow each entry to fit on a single (compressed) line when the log is printed.

The items are:

- o The callsign of the station worked (max 6 characters)
- o The date of the contact in the form MM-DD-YY (8)
- o The frequency of the contact (8)
- o The mode of the contact (3)
- o The RST report you sent to the other station (5)
- o The RST report sent to you by the other station (5)
- o The starting time of the contact in the form HH:MM (5)
- o The CHECK of the contact, which is either the ending time of the contact, or a contest serial number, or some other special exchange (5)
- o The name of the operator worked (10)
- o The QTH of the station worked (20)
- o A comment field, for anything you like (30)
- o QSL status: The suggested use of this field would be to enter an "S" if you have sent a QSL to the station, an "R" if you have received a QSL from the station, or an "SR" for both (2)

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In addition, each contact is given a number used for referring to the contact in the log, but this number is assigned by the program, and does not appear on the log printout.

USING THE LOGGER

... is easy. The ten function keys initiate all of the functions you use to maintain your log.

The options are:

- F1 ... Add new log entries
- F2 ... Edit a past entry

```
F3 ... Search for an entry
F4 ... Print log or labels
F5 ... List entries by number
F6 ... Delete an entry
F7 ... Data file status
F8 ... Sort entries
F9 ... Save data file
F10 .. Terminate program
```

These are pretty self explanatory. Some embellishment:

F1 (Add New Entries) - The names of the 12 fields appear, and prompts at the bottom of the window remind you what to enter. The input routine limits how long each entry can be in accordance with the maximum character lengths of each field given above. Some fields provide default values, which you can easily type over if you don't want them (for example, "59" automatically appears for RST SENT). If you wish to replicate the information you entered in that field for the previous entry you made, type ^R (type R while holding down the Ctrl key).

You can use the arrow keys to get around while entering data. When you get to the bottom of the entries, or hit ESCape, you are prompted for one of four actions. Hitting return adds the entry to the log, and begins entry of another contact. "L", for "last", adds the entry to the log and terminates the Add New Entry window. "R", for "re-enter", lets you re-enter the contact before you save it, in case you've made a mistake. Hitting ESCape does not save the entry, and cancels the Add New Entry window.

F2 (Edit) - Given an entry number, displays and allows you to change the data for that contact. Works very much like F1 (Add New Entries). Hitting <Page Down> will jump to the next entry in the log without saving the current one. Similarly, <Page Up> jumps backwards. ^L prints a label (see F4 (Print)).

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F3 (Search) - You can search for entries in your logbook by callsign, mode, frequency, or date. You will be asked to select one of these options after you hit F3. Then, you enter the value to search for. You can use a '?' (question mark) to represent a wildcard search value.

For example, searching by date for "??-??-88" will pull up all of your log entries for 1988. You will be shown a summary of contact information for each entry that matches the search, along with the QSO number for the entry. You can use F2 (Edit) to see more information on an individual contact.

F4 (Print) - You can output a listing of your log either directly to the printer, or to the file LOGGER.LOG. You are given the choice when you hit F4. You are then also asked which page the printing is to begin on.

The use of printing the log to a file is that if it is long, you can print it later, perhaps using the DOS print spooler PRINT.COM. Note that the file contains the necessary printer codes the Logger uses to toggle printer effects. You could also send the file to the printer by using the command COPY LOGGER.LOG PRN.

The file is created on the same drive or directory from which the Logger was started (the default). Make sure there is enough space, as the file can get quite big.

You can also print out labels for a range of entries. Then, just affix the labels to your QSL cards to save yourself some writing. Label printing is designed to work on standard 5-line, 40-column, 1-across labels. The Logger can also handle different numbers of lines per label, down to 2 and up to huge. Depending on the number of lines per label you set, the Logger will print out the QSO information for the chosen range of entries in either a 2, 3, or 4 line format. If you want to print a label for a single entry, enter that entry number as both the starting and ending numbers of the range.

You can also print out a quick label from Edit (F2) by hitting ^L whenever you would normally enter input. Any changes you might have made to the entry are saved before the label is printed. If you are using labels with spacings different than the default, use the regular (F4) label printing method for the first label you print.

F5 (List by Number) - Each contact entered into your log is assigned a sequential entry number. This provides a quick way to access a specific entry in the log. List by Numbers shows you sequentially all of the contacts in the log, but shows you only the entry number, the callsign, and the date of the contact. This gives you

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a quick review of the log, and by using F2 (Edit), you can see the complete entry for a given contact number.

Note that the numbers are always sequential, from 1 to the number of entries in the log. The number for a given entry may change after sorting the log, or after deleting an entry with a lower number.

F7 (Data File Status) - Quickly shows you how many entries there are in your log, the size of the file LOGGER.TMP, and the amount of space free on the drive where LOGGER.TMP is located. This is handy to see if you are filling up your disk as you add entries.

Typing a "?" at the main menu gives you simple help screens. Typing Alt-S at the main menu puts you in DOS until you use the DOS "EXIT" command. Typing Alt-C toggles the background colors on and off for monochrome monitor users.

NOTE: In order for the Shell To DOS to work, the file COMMAND.COM must be available.

*** Remember to use the F9 SAVE DATA FILE command if you make any changes to the log which you would like to keep. By the same token, you can mess around with your log as much as you want without worrying about messing it up permanently as long as you don't use F9. ***

Also, the ESCAPE key is always available to get you out of any function.

SORTING

The Logger is intended to store your log entries in chronological order. Under most circumstances, you won't use the F3 Sort command, which sorts your entries into that order, or can sort them by callsign, mode, or frequency. You just put your entries in as you work stations, and you end up with a log in chronological order, just as it should be. However, you may end up with a few entries out of order. You could have put them in wrong, or forgotten one, or you might just want to convert your paper logs over to the computer a few months at a time, going back in time. If this is the case, it's simple to sort them back into chronological order.

In order for the chronological sort to be done correctly, you must have all TIME entries in the form HH:MM, and all DATE entries in the form MM-DD-YY. The input routines prompt you to enter the information in these formats, so you won't forget.

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The sort routine needs some extra disk space on the path where LOGGER.TMP has been stored. Given these, the sort is pretty efficient. The more entries that are out of order, the quicker it gets. The maximum number of entries you can sort depends on both free memory and disk space. My machine has 640k of memory and a hard disk, and I have sorted a data file containing more than 12000 entries while testing the Logger.

If either not enough memory or disk space is available, the Logger cannot sort.

Note that whenever you re-sort the log, the entry numbers for each entry may change.

*** Remember, the results of sorting are not permanent until you use F9. ***

POP-UP WINDOWS

My thanks to Dave Evers for making some great pop-up window routines public domain. I've since modified them a few times, but they were a great starting point.

You'll find in many cases that by hitting successive function keys, you can have windows pop up over each other. This is especially useful if you are paging through the numbered listing of your entries, and you want to examine a particular entry in more detail without losing your place in the listing. Just hit F2 (Edit) from within the F5 (List by Numbers) routine, and the EDIT ENTRY window pops right up. When you exit the EDIT function, you are back where you came from.

Exceptions: No windows will pop over EDIT ENTRY or ADD NEW ENTRY (except TERMINATE, F10). Also, no window will pop up over another window that is waiting for input (as opposed to just waiting for a key hit).

HAVE FUN

The best way to learn the Logger is to play around with it. I hope somebody finds a real use for it (besides me). Please write to me with your comments on the program.

73,
Dave
KD2MT

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LOGGER VERSION HISTORY
(For those interested in such things...)

I have been working on the Logger in various forms for about two and a half years. It started out in interpreted BASIC, and has since become much more powerful. I reached version 5.00 when I decided to release the Logger to the public domain. For release, I started the numbering over with 1.00.

Version 1.00 released in June of 1987.

Version 1.10 released in July of 1987. Window colors altered, and windows cleaned up. Major internal restructuring caused 1.10 to be smaller than 1.00. Little fixes here and there. Use of Up and Down keys added to EDIT and ADD routines.

Version 1.11 released 10 days after 1.10. I had disabled error trapping while developing 1.10, and I forgot to re-enable it when I finally compiled it! What a dummy!

Version 1.20 released in August of 1987. A new sort! Previously, only a disk-based sort was implemented. After a good book on the Quicksort algorithm, this new routine was added. Also, the status routine now also displays available disk space on the path for LOGGER.TMP. Use of the Home and End keys added to input routine. Monochrome monitor support added. Fixed bug in print routine prompt. Support for over 10,000 QSO's added (previous limit was 9999).

Version 1.30 released in October of 1987. Who was I kidding with the disk-based sort? It really was only there

because it worked fine on my original versions of the Logger, which all used a RAM disk. In this version, I have removed it completely. The sorting limit is set at 8000 entries, due to my stingy compiler. Also, a few little bugs are worked out.

Multiple printer support added. Previous versions did not use the file LOGGER.PRT. Also, ability to print to a file added.

Version 1.40 released in November of 1987. Limited release. Performance enhancements. Screen writes greatly speeded up. Windows snap up faster. The sorted file write after sorting is also about twice as fast.

Also, you no longer need COMMAND.COM on the disk with LOGGER.EXE. It was necessary before, although I didn't realize it. You do need COMMAND if you shell out, and when you terminate the Logger. And the backup and save of the data file will be faster if COMMAND is present.

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Automatic detection of mono card implemented. Page Up and Page Down keys added to edit routine. Search by date added. There was a little bug where if you hit ESCape after entering information into a box, it would be treated as if you hit enter. Fixed.

Use of Ins and Del keys added to input routine. Added the introductory screen.

Version 1.41 released in December of 1987. The first window in the logbook printing routine was unreadable on some monochrome monitors. It should be OK now.

WB8VGE wrote in with suggestions, and a couple have been added. If you enter a character in the frequency field, rather than only digits and a decimal point, the Logger will "blip" at you as a warning. The data will be accepted if you leave it that way, though. This only occurs in Add New Entries. Also, the ^R key was added to the Add New Entries routine.

Version 1.50 released in February of 1988. Complete cosmetic makeover. Every window looks a little sleeker now (in my opinion). Sorting improved with the addition of sort by call, mode, and frequency. Search by mode and frequency added. Can abort a search with <ESC>. Previous sorting limit of 8000 entries done away with. Label printing added. Automatic <ENTER> added after ^R.

NOTE: PRT printer files are slightly different with

this version, and the Logger may not print correctly with old PRT files. Be sure to regenerate your PRT file with LOGPRT (now version 2.00).

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